

SECRET

15 March 1961

MEMORANDUM FOR: THE RECORD**SUBJECT : Technical Review Board Beacon Briefing**

1. Representatives from TSD met with the Technical Review Board on 14 March for the purpose of briefing interested members on the TSD Beacon program. The meeting was arranged through the good offices of [] at the suggestion of Dr. Gottlieb in order to clarify the mechanisms by which present as well as future specific beacon problems may be ironed out.

50X1

2. Accordingly, I briefed the members on the HRT beacon series outlining the various operating and technical parameters involved. Some time was spent discussing our TSD HRS system developments and finally a detailed discussion of the HRT-2 prototype.

3. It was decided that the HRT-2 prototype should have the following characteristics:

- a. Separable or replaceable power supply.
- b. Antenna design to operate in up to 50 knots wind condition.
- c. A variety of power supplies for use in various environments.
- d. A quarter wave horizontal wire antenna would be a useful accessory in some operations.
- e. Tuning should be accomplished by screwdriver adjustment using a concealable neon light as an indicator.
- f. It can be assumed that most aircraft using this beacon as a homer will have a RFO function in the ADF receiver. For this reason no modulation will be necessary in the transmitter.
- g. A useful range of 20 miles in good soil conditions is quite acceptable to the user. (This means an honest 10 watt output will be sufficient.)

4. The following represents actions for TSD.

- a. The TRB would like to be represented at the next flight test (notify []).

50X1

SECRET

- 2 -

- b. TSD jointly with DPD should investigate military requirements for the HRT-2 (particularly the Special Forces at Fort Bragg).
- c. A world-wide ground conductivity survey would be useful for operational planning. TSD/SB will investigate through its cleared contacts at the US Geological Survey.
- d. The possibility of designing a simple ground conductivity measuring device for field use should be investigated.
- e. 50X1
- f. TSD/TA should follow-up through WE on the Tri-Partite beacon requirement. was mentioned as a key person on this program. 50X1

5. Finally, the question of maintenance of operational aircraft and its ADF equipment was discussed and it was pointed out that TSD feels very strongly that this aspect needs to be thoroughly controlled and properly supported if successful beacon operations are to be run in the future using the HRT-2. Details of this program will be worked out with appropriate DPD personnel.

50X1
TSD/Systems Branch

Distribution:

Orig - C/TSD/AQB

- 1 - TRB File
- 1 - S-7.8.3/1
- 1 - S-7.7.4/1
- 1 - MH
- 1 - Chrono

TSD/SB/MH:eip (14 Mar.61)

SECRET